

A circular ink stamp is located in the upper right corner of the page. The text 'JUN 18 1999' is printed in the center of the circle. Along the bottom inner edge of the circle, the words 'PATENT & TRADE MARK' are printed. The top half of the circle is partially obscured by a dark, irregular mark.

ATTY. DOCKET NO.
0942.4560001

APPLICATION NO.
09/266,935

APPLICANT
Li et al.

FILING DATE
March 12, 1999

GROUP
1635

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
1	AA1	4,683,202	07/28/1987	Mullis, K.B.	435	91	10/25/1985
1	AB1	4,767,699	08/30/1988	Vary, C.P.H. <i>et al.</i>	435	6	05/02/1985
1	AC1	5,545,540	08/13/1996	Mian, A.	435	91.2	01/19/1995
2	AD1	5,871,929	02/16/1999	Barnes, W.M.	435	6	07/23/1997
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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
JK	AL1	WO 95/20682	08/03/1995	WIPO	_____	_____	Yes No
	AM1	DE 44 11 588 C1	09/28/1995	Germany	_____	_____	Abstract Yes
	AN1	DE 44 11 594 C1	12/14/1995	Germany	_____	_____	Abstract Yes
JK	A01	EP 0 821 059 A2	01/28/1998	Europe	_____	_____	Yes No
	AP						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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24	AR	1	Aslanyan, V.M. <i>et al.</i> , "Conformation and Thermal Stability of DNA in Aqueous Solutions of β -Alanine and γ -Aminobutyric Acid," <i>Biophysics</i> 29:615-620 (1984)
	AS	1	Baskaran, N. <i>et al.</i> , "Uniform Amplification of a Mixture of Deoxyribonucleic Acids with Varying GC Content," <i>Genome Research</i> 6:633-638 (1996)
26	AT	1	Buche, A. <i>et al.</i> , "Glycine and other amino compounds prevent chromatin precipitation at physiological ionic strength," <i>FEBS Lett.</i> 247:367-370 (1989)

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Ch	AR	2	Buche, A. et al., "Organic Osmotic Effectors and Chromatin Structure," <i>J. Biomol. Struct. & Dynam.</i> 8:601-618 (1990)
	AS	2	Buche, A. et al., "Effect of Organic Effectors on Chromatin Solubility, DNA-Histone H1 Interactions, DNA and Histone H1 Structures," <i>J. Biomol. Struct. & Dynam.</i> 11:95-119 (1993)
Ch	AT	2	Cánovas, D. et al., Osmoprotectants in <i>Halomonas elongata</i> : High-Affinity Betaine Transport System and Choline-Betaine Pathway," <i>J. Bacteriol.</i> 178:7221-7226 (1996)

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Gene R. Lee

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AR	3	Cánovas, D. et al., "Isolation and Characterization of Salt-sensitive Mutants of the Moderate Halophile <i>Halomonas elongata</i> and Cloning of the Ectoine Synthesis Genes," <i>J. Biol. Chem.</i> 272:25794-25801 (October 1997)
AS	3	Carninci, P. et al., "Thermostabilization and thermoactivation of thermolabile enzymes by trehalose and its application for the synthesis of full length cDNA," <i>Proc. Natl. Acad. Sci. USA</i> 95:520-524 (January 1998)
AT	3	Chambers, S. T. et al., "Dimethylthetin Can Substitute for Glycine Betaine as an Osmoprotectant Molecule for <i>Escherichia coli</i> ," <i>J. Bacteriol.</i> 169:4845-4847 (1987)

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	AR	<u>4</u>	Flock, S. et al., "Osmotic Effectors and DNA Structure: Effect of Glycine on Precipitation of DNA by Multivalent Cations." <i>J. Biomol. Struct. & Dynam.</i> 13:87-102 (1995)
	AS	<u>4</u>	Flock, S. et al., "Dielectric Constant and Ionic Strength Effects on DNA Precipitation," <i>Biophys. J.</i> 70:1456-1465 (1996)
	AT	<u>4</u>	Flock, S. et al., "Na NMR Study of the Effect of Organic Osmolytes on DNA Counterion Atmosphere," <i>Biophys. J.</i> 71:1519-1529 (1996)

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	AN						Yes No
	AO						Yes No
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	AR	<u>5</u>	Frackman, S. et al., "Betaine and DMSO: Enhancing Agents for PCR," <i>Promega Notes</i> 65:27-29 (February 1998)
	AS	<u>5</u>	Gouesbet, G. et al., "Characterization of the <i>Erwinia chrysanthemi</i> Osmoprotectant Transporter Gene <i>ousA</i> ," <i>J. Bacteriol.</i> 178:447-455 (1996)
	AT	<u>5</u>	Hengen, P.N., "Optimizing multiplex and LA-PCR with betaine," <i>Trends Biochem. Sci.</i> 22:225-226 (June 1997) ?

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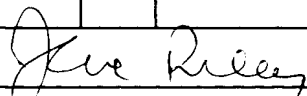
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	AN						Yes No
	AO						Yes No
	AP						Yes No

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	AR	<u>6</u>	Henke, W. <i>et al.</i> , "Betaine improves the PCR amplification of GC-rich DNA sequences," <i>Nucl. Acids Res.</i> 25:3957-3958 (October 1997)
	AS	<u>6</u>	Hogrefe, H. <i>et al.</i> , "Novel PCR Enhancing Factor Improves Performance of <i>Pfu</i> DNA Polymerase," <i>Stratagene Strategies</i> 10:93-96 (August 1997)
	AT	<u>6</u>	Houssier, C. <i>et al.</i> , "Effects of Compensatory Solutes on DNA and Chromatin Structural Organization in Solution," <i>Comp. Biochem. Physiol.</i> 117A:313-318 (July 1997)

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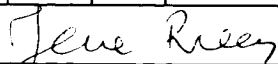
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	AR	Z	Kondakova, N.V. et al., "Effect of Low-molecular Amines on the Conformation and Stability of the DNA Double Helix," <i>Molekulyarnaya Biologiya</i> 9:742-746 (1975) .
	AS	Z	English Language Translation for Kondakova, N.V. et al., "Effect of Low-molecular Amines on the Conformation and Stability of the DNA Double Helix," <i>Molekulyarnaya Biologiya</i> 9:742-746 (1975) (Document AR7)
	AT	Z	Landre, P.A. et al., "The Use of Cosolvents to Enhance Amplification by the Polymerase Chain Reaction," in <i>PCR Strategies</i> , Innis, M.A. et al., eds., Academic Press, San Diego, pp. 3-16 (1995) .

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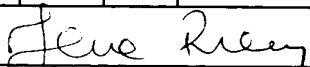
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	AR	<u>8</u>	Le Rudulier, D. et al., "Molecular Biology of Osmoregulation," <i>Science</i> 224:1064-1068 (1984) .
	AS	<u>8</u>	Li, C.-J. et al., "Nonprotein Amino Acids from Seeds of <i>Cycas circinalis</i> and <i>Phaseolus vulgaris</i> ," <i>Phytochem.</i> 42:443-445 (1996) ,
	AT	<u>8</u>	Malin, G. and A. Lapidot, "Induction of Synthesis of Tetrahydropyrimidine Derivatives in <i>Streptomyces</i> Strains and Their Effect on <i>Escherichia coli</i> in Response to Osmotic and Heat Stress," <i>J. Bacteriol.</i> 178:385-395 (1996) :

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	AR	2	Marquet, R. and C. Houssier, "Thermodynamics of Cation-Induced DNA Condensation," <i>J. Biomol. Struct. & Dynam.</i> 9:159-167 (1991)
	AS	2	Mytelka, D.S. and M.J. Chamberlin, "Analysis and suppression of DNA polymerase pauses associated with a trinucleotide consensus," <i>Nucl. Acids Res.</i> 24:2774-2781 (1996)
	AT	2	Randall, K. et al., "Natural and synthetic betaines counter the effects of high NaCl and urea concentrations," <i>Biochim. Biophys. Acta</i> 1291:189-194 (1996)

EXAMINER 	DATE CONSIDERED 9/27/99
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26	AR	10	Randall, K. <i>et al.</i> , "Accumulation of natural and synthetic betaines by a mammalian renal cell line," <i>Biochem. Cell Biol.</i> 74:283-287 (1996)
	AS	10	Rajendrakumar, C.S.V. <i>et al.</i> , "DNA helix destabilization by proline and betaine: possible role in the salinity tolerance process," <i>FEBS Lett.</i> 410:201-205 (June 1997)
16	AT	10	Rees, W. A. <i>et al.</i> , "Betaine Can Eliminate the Base Pair Composition Dependence of DNA Melting," <i>Biochemistry</i> 32:137-144 (1993)

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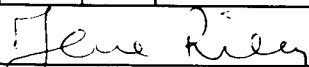
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	AR	<u>11</u>	Varadaraj, K. and D.M. Skinner, "Denaturants or cosolvents improve the specificity of PCR amplification of a G+C-rich DNA using genetically engineered DNA polymerases," <i>Gene</i> 140:1-5 (1994)
	AS	<u>11</u>	Weissensteiner, T. and J.S. Lanchbury, "Strategy for Controlling Preferential Amplification and Avoiding False Negatives in PCR Typing," <i>BioTechniques</i> 21:1102-1108 (1996)
	AT	<u>11</u>	Woodford, K. et al., "The Use of K ⁺ -free buffers eliminates a common cause of premature chain termination in PCR and PCR sequencing," <i>Nucl. Acids Res.</i> 23:539 (1995)

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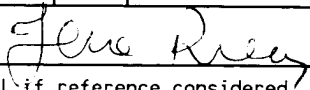
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	AR	<u>12</u>	Bioactive Peptides, 1993 Sigma Chemical Company Catalogue, St. Louis, MO, pp. 1028-1034
	AS	<u>12</u>	Derwent World Patents Index, English language abstract of DE 44 11 588 C1 (Document AM1), WPI Accession No. 95-329356/199543
	AT	<u>12</u>	Derwent World Patents Index, English language abstract of DE 44 11 594 C1 (Document AN1), WPI Accession No. 96-021044/199603

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